REMARKS

Below are preliminary remarks in support of the patentability of claims 1-13. Claims 1-10 and claims 12 and 13 were presented in the parent application no. 09/384,112. Claim 11 has been added to further clarify Applicants invention as originally disclosed. In an Office Action dated April 8, 2003, claims 1 and 11 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schairer (U.S. 6,320,686) in view of Hamilton, et al. (Basic Integrated Circuit Engineering, 1975). It is alleged in the Office Action,

> For claim 1, the bi-directional optical link taught by **Schairer** includes the following claimed subject matter, as noted, 1) the claimed detector is met by the detector chip (No. 8) facing a predetermined direction to receive light, and 2) the claimed emitter is met by the emitter chip (No. 10) stacked over the upper surface and oriented to direct a beam of light. However, there is no mention of thin film anywhere in the reference.
>
> Thin film elements are not new in electronic circuitry. The text provided by the Hamilton reference states that thin film elements can be used to augment performance available from diffused components, thereby increasing circuit design flexibility. This is ample evidence that thin film elements have been used for some time in electronic circuit construction. Design flexibility is one of numerous advantages that thin film elements provide, according to this disclosure. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include thin film elements such as those found in Hamilton for the purpose of increasing circuit design flexibility.

Applicants submit that neither the Schairer or Hamilton reference alone, or in combination, disclose, teach or suggest a **thin film detector** or a **thin film emitter** as the term thin film is known and used by those having ordinary skill in the art. Thin film technology generally includes devices having a thickness ranging typically between 0.1 and 10 microns thick, and in some circumstances, up to 30 to 50 microns thick. Hamilton discloses a semi-conductor device layer that is integral to a substrate. Such structures, which generally have a total thickness of approximately 350 microns, are indeed not new, but are also not what Applicants are claiming. The device layer

of an integrated circuit is generally 3 or 4 microns thick, with the balance of the thickness comprised of the semi-conductor substrate. In thin film technology, the thick substrate is removed. Substrates in generally are optically absorbing. By removing the substrate, such as in thin film technology, fabrication is generally simpler and the optically absorbing portion is removed. Neither the Hamilton nor the Schairer reference teaches thin film technology as that term is used in the application and understood in the art, and thus Applicants respectfully submit that the claim terms **thin film detector** and **thin film emitter** of claims l and 6 are patentably distinguishable features over the cited references. Applicants also wish to point out that substrate removal is taught in the provisional application (60/097,946) that supports the parent application, in addition to its well-known meaning.

Applicants respectfully request consideration and allowance of the claims 1-13.

Favorable action in regard to the application is earnestly solicited.

Respectfully submitted,

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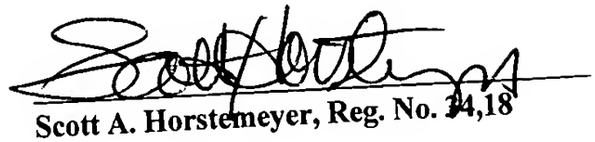
By: 
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Docket No. 062004-1211